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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/694,577

10/27/2003

Beat Krattiger

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ST. ONGE STEWARD JOHNSTON & REENS, LLC

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EXAMINER

LEUBECKER, JOHN P

ART UNIT

PAPER NUMBER

3739

MAIL DATE

DELIVERY MODE

01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/694,577

Applicant(s)

KRATTIGER ET AL.

CT

Examiner

John P. Leubecker

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6,10,12-16 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 is/are allowed.
- 6) ☒ Claim(s) 1,6,10,12,13,15,16,28 and 29 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 27, 2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 28 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 28 and 29, terms "said part of said imaging optics" lacks antecedent basis in that the recited "part" and "imaging optics" have not be previously recited (by amendment, these terms were removed from claim 1).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 10, 15, 16, 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa et al. (U.S. Pat. 4,947,245).

Referring mainly to Figures 2a, 2b, 4a and 4b, Ogawa et al. disclose a shaft (4, Fig.2a) having a distal end; an interchangeable head (2b, Fig.4a) detachably connected to said distal end of said shaft at a coupling point (the point at which the proximal end of head 2b, which can be seen as the right side of Fig.4b, is connected to the distal end of shaft 4, which can be seen as the left side of Fig.2b is the coupling point)(col.3, lines 4-13); a first transmission system (24,48) for transmission of illuminating power in a distal direction, said first transmission system being arranged partially in said shaft (48, Fig.2b) and partially in said interchangeable head (24, Fig.4b) and passing through said coupling point; a second transmission system (3,23,43) for transmission of image information in a proximal direction, said second transmission system being arranged partially in said shaft (43, Fig.2b) and partially in said interchangeable head (3,23, Fig.4b) and passing through said coupling point; at least one of said interchangeable head and said coupling point being designed in such a way that upon loosening of said interchangeable head image information of perceptively modified quality is transmitted by said second transmission system (any change in axial distance, such as upon loosening, will change the focused transmission between the lens elements, which is a "perceptively modified quality"); wherein said interchangeable head is connected to said distal end of said shaft at said coupling point by means of at least two positioning pins (26, Fig.4b, col.6, lines 45-50) that engage corresponding bores (47, Fig. 2c, col.4, lines 62-66) and wherein said at least two positioning pins are exchangeable (any pin is "exchangeable" either by replacing the element itself or using a different

interchangeable head). As to claim 10, note the pins (26) are on the interchangeable head and the bores (47) are on the shaft. As to claims 15 and 16, lens holder (30a, Fig.4i) and adjustment knob (31a) constitute an operating element which is connected to the distal end of the shaft by means of a plug (the accommodation of 31a and 30a into the bore on shaft 4, as shown in Fig.4k constitutes a plug). As to claims 28 and 29, the shaft side imaging optics (e.g. 43) form a first imaging part that this capable of being exchanged with a second imaging part (e.g., by replacement of the shaft with another), whether the second imaging part has the same or different optical properties.

6. Claims 1, 10, 12, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hidaka et al. (U.S. Pat. 6,095,970).

Referring mainly to Figure 2, Hidaka et al. disclose a shaft (60) having a distal end; an interchangeable head (30) detachably connected to said distal end of said shaft at a coupling point (the point at which the proximal end of head 30 is connected to the distal end of shaft 60); a first transmission system (91,92) for transmission of illuminating power in a distal direction, said first transmission system being arranged partially in said shaft (92) and partially in said interchangeable head (91) and passing through said coupling point (col.5, lines 19-30); a second transmission system (23,26) for transmission of image information in a proximal direction, said second transmission system being arranged partially in said shaft (26) and partially in said interchangeable head (23) and passing through said coupling point (col.4, lines 30-40); at least one of said interchangeable head and said coupling point being designed in such a way that upon loosening of said interchangeable head image information of perceptively modified quality is

transmitted by said second transmission system (loosening could cause electrical disconnection between 24 and 27, which is a "perceptively modified quality"); wherein said interchangeable head is connected to said distal end of said shaft at said coupling point by means of at least two positioning pins (24, col.4, lines 32-34) that engage corresponding bores (27, col.4, lines 35-38) and wherein said at least two positioning pins are exchangeable (any pin is "exchangeable" either by replacing the element itself or using a different interchangeable head). As to claim 10, the pins (24) are on the interchangeable head, the bores (27) are on the shaft (Fig.2). As to claim 12, at least one of the positioning pins serves the purpose of transmitting electric signals and electric power (col.4, line 28-30). As to claims 15 and 16, CCD (12) constitutes at least one operating element arranged in said interchangeable head and connected to the distal end of the shaft by means of a plug (remaining pins 24 and bores 27 or projection 19 and indentation 61).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al. in view of Abramson (U. S. Pat. 4,425,375).

Ogawa et al. disclose the device as described above but fails to mention that the ends (at the coupling point) of the optical fibers waveguides (24,48) are "polished". If not inherent due to

conventional optical fiber bundle manufacturing techniques, Abramson is just one reference cited as showing that such "polishing" of the end provides for increased light efficiency (col.1, lines 18-33), especially when two such ends are being optically connected. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided a "polished" surface on the ends of the optical fiber waveguides of Ogawa et al. for the reasons taught by Abramson.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al.

Ogawa et al. fails to disclose an elastic seal (e.g., o-ring) at the coupling of the interchangeable head (2b) and shaft (4). Such an elastic seal would constitute an elastic element that upon loosening of the shaft and head would distance the head from the distal end of the shaft. However, Ogawa et al. does teach use of such an elastic seal between a different interchangeable head and the shaft (note seal 15 of head 2a, Fig.3a, col. 5, lines 53-59) to prevent contaminants from invading the shaft (4). It would require no more than routine skill, in view of this teaching, to provide a seal (15) between the interchangeable head (2b) and shaft (4) for the same purpose--to prevent contamination of the shaft.

Allowable Subject Matter

10. Claim 30 is allowed.

11. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments filed November 27, 2007 have been fully considered but they are not persuasive. Rejections appear above to address the claims as amended.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lafferty et al. (U.S. Pat. 5,188,093)—note positioning pins (94, Fig.2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (571) 272-4769.

The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P. Leubecker/
Primary Examiner
Art Unit 3739

jpl